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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,007	02/25/2004	Paul D. Sandoz	5681-74200	3937

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EXAMINER	
HOANG, HIEU T	

ART UNIT	PAPER NUMBER
2452	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/787,007	SANDOZ ET AL.	
	Examiner	Art Unit	
	HIEU T. HOANG	2452	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 February 2004*.

2a)☐ This action is FINAL. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-75* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-75* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *07/01/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the communication filed on 02/25/2004.

2. Claims 1-75 are pending and presented for examination.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 23-25 and 57-59 are rejected under 35 U.S.C. 101 the claimed invention is directed to non-statutory subject matter. The claims recite multiple "means" for communicating, switching... These means can be software means (see specification, page 42, conclusion, par. 2). Therefore, a system comprising these means is a software system, which is non-statutory.

5. Claims 37-47, 68-75 and are rejected under 35 U.S.C. 101 the claimed invention is directed to non-statutory subject matter. A computer accessible medium, as defined in the specification to be a transmission medium or signals or links (see specification, page 42, conclusion, par. 1) is non-statutory subject matter.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-75 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-75 recite acronyms such as API, JAX-RPC, J2ME, XML, WS-Fast, Fast Infoset, Fast Schema. These are vague acronyms and uncommon names that must be clearly spelled out in the claims.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-5, 8, 9, 12-17, 23, 26-31, 34, 37-42, 45, 48-51, 54, 57, 60-62, 65, 68-70 and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joseph (Developer's introduction to JAX-RPC, part 1), in view of Russell et al. (WO 03/046757 A2, hereafter Russell).

10. For claim 1, Joseph discloses a system, comprising:

a client comprising a client Web services stack that supports both a markup language protocol and an encoding protocol; and a server comprising a server Web services stack that supports both the markup language protocol and the encoding protocol (fig. 1, client and server web service stacks, table 2 on p. 8, XML literal (markup language encoding protocol) or other encoded protocol documents);

wherein the server Web services stack is configured to communicate with the client Web services stack according to the markup language protocol (table 2 on p. 8, XML markup language protocol); and

wherein the client Web services stack and the server Web services stack each support the markup language protocol and the encoding protocol with a single API (fig. 1, single API between client and JAX-RPC stub or JAX-RPC ties;

Joseph does not disclose the encoding protocol is a binary encoding protocol; and dynamically switch to communicate with the client Web services stack according to the binary encoding protocol.

However, Russell discloses the encoding protocol is a binary encoding protocol (page 1, description of the Sate of the Art, par.1, WBXML a binary encoding protocol); and dynamically switch to communicate with the client Web services stack according to the binary encoding protocol (p. 3, summary, par. 1, determining whether the binary encoding code book (of a binary encoding protocol) is stored on the device, use the code book to use the binary encode-decode protocol to recover the XML document).

It would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Joseph and Russell to switch between encoding protocols in order to choose a most suitable protocol for implementing web services communication.

11. Claims 12, 23, 26, 37 are rejected for the same rationale given in claim 1.

12. For claim 48, Joseph discloses a system, comprising:

a processor; and a memory comprising program instructions, wherein the program instructions are executable by the processor to implement a Web services stack (fig. 1, web service stack) configured to:

communicate with other systems using either an encoding protocol or a markup language protocol using a single API (fig. 1, single API between client and JAX-RPC stub or JAX-RPC ties, table 2 on p. 8, XML literal (markup language encoding protocol) or other encoded protocol documents);

Joseph does not disclose the encoding protocol is a binary encoding protocol and

negotiate with another system to determine if the other system supports the binary encoding protocol;

if the other system supports the binary encoding protocol, communicate with the other system according to the binary encoding protocol; and

if the other system does not support the binary encoding protocol, communicate with the other system according to the markup language protocol.

However, Russell discloses a binary encoding protocol (page 1, description of the Sate of the Art, par.1, WBXML a binary encoding protocol)

negotiate with another system to determine if the other system supports the binary encoding protocol; if the other system supports the binary encoding protocol, communicate with the other system according to the binary encoding protocol (p. 3, summary, par. 1, determining whether the binary encoding code book is stored on the device, use the code book to recover the XML document); and

Joseph-Russell further discloses:

if the other system does not support the binary encoding protocol, communicate with the other system according to the markup language protocol (Joseph, table 2, XML encoding protocol is required as a basis encoding protocol for a JAX-RPC web service stack).

It would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Joseph and Russell to negotiate an encoding protocol as disclosed by Russell so that the most suitable protocol can be used.

13. Claims 57, 60, 68 are rejected for the same rationale given in claim 48.

14. For claims 2, 3 and 4, Joseph-Russell further discloses the client is a JAX-RPC client or a J2ME client and the server is a JAX-RPC server (Joseph, fig. 1, table 2, JAX-RPC, page 1 par. 1).

15. Claims 13-15, 27-29, 38-40, 49, 61, 69 are rejected for the same rationale given in claims 2-4.

16. For claim 5, Joseph-Russell further discloses the markup language protocol is XML (Joseph, table 2, XML).

17. Claims 17, 31, 42, 51 are rejected for the same rationale given in claim 5.

18. For claim 16, Joseph-Russell further discloses the system and the other system are peers on a network (Joseph, fig. 1, peers).

19. Claims 30, 41, 50, 62, 70 are rejected for the same rationale given in claims 5.

20. For claim 8, Joseph-Russell further discloses another client comprising another client Web services stack that supports only the binary encoding protocol, and wherein the server Web services stack is further configured to communicate with the other client Web services stack according to the binary encoding protocol (Russell, summary, par. 1, binary encoding protocol is an obvious preferred protocol).

21. For claim 9, Joseph-Russell further discloses wherein, to communicate with the client Web services stack according to the binary encoding protocol, the server Web services stack is further configured to: translate the markup language protocol to binary encoding protocol messages for transmission to the client Web services stack; and translate binary encoding protocol messages received from the client Web services stack to the markup language protocol (Russell, description of the art, par. 1, summary, par. 1, translation or encoding and decoding an XML document using binary code books).

22. Claims 20, 34, 45 are rejected for the same rationale given in claim 9.

23. For claim 54, Joseph-Russell further discloses the Web services stack is further configured to, if the other system includes a Web services stack configured to communicate with either the binary encoding protocol or the markup language protocol:

communicate with the other system according to the markup language protocol; and dynamically switch to communicate with the other system according to the binary encoding protocol (Russell, summary, par. 1).

24. Claims 65 and 73 are rejected for the same rationale given in claim 54.

25. Claims 6, 10, 11, 18, 21, 22, 24, 32, 35, 36, 43, 46, 47, 50, 55, 56, 58, 63, 66, 67, 71, 74, 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joseph-Russell, in view of Krill (Binary Encodings Key to Proposal).

26. For claim 6, Joseph-Russell does not disclose the binary encoding protocol is WS-Fast However, Krill discloses the same (Krill, second page). It would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Joseph-Russell and Krill to apply a known protocol such as WS-Fast to Joseph-Russell's invention.

27. Claims 18, 24, 32, 43, 52, 58, 63, 71 are rejected for the same rationale given in claim 6.

28. For claims 10 and 11, the claim is rejected for the same rationale as in claim 6. Joseph-Russell-Krill further discloses to communicate with the other system according to the binary encoding protocol, the Web services stack is further configured to serialize the markup language protocol to generate binary encoding protocol messages according to Fast Infoset format or Fast Schema format (Krill, last par.)

29. Claims 21, 22, 35, 36, 46, 47, 55, 56, 66, 67, 74, 75 are rejected for the same rationale given in claims 10 and 11.

30. Claims 7, 19, 33, 44, 53, 59, 64, 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joseph-Russell, further in view of ASN.1 (Introduction to ASN.1, IDS)

31. For claim 7, Joseph-Russell does not disclose the binary encoding protocol uses Packed Encoding Rules (PER) encoding. However, ASN.1 discloses the same (p. 2, par. 3, packed encoding rule). It would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Joseph-Russell and ASN.1 to apply a known encoding rule such as PER to Joseph-Russell's invention.

32. Claims 19, 33, 44, 53, 59, 64, 72 are rejected for the same rationale given in claim 7.

Conclusion

33. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Hughes et al. US 6,862,267.
- Kren. US 2007/0124362.
- Joseph. Developer's introduction to JAX-RPC, part 2.
- W3C. Simple Object Access Protocol (SOAP) 1.1.

34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu T. Hoang whose telephone number is 571-270-1253. The examiner can normally be reached on Monday-Thursday, 8 a.m.-5 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HH

/Kenny S Lin/
Primary Examiner, Art Unit 2452